

Multimedia Appendix 3: Characteristics of the 55 apps listed by respondents as those they have used for management of their tinnitus

Name	Developer	Version	Category	Star rating*	Cost GBR £	In app purchases	Installs	Last update	No of times cited	Tinnitus specific	Main Focus
White Noise Free	TMSOFT	7.3. Amazon 7.2. Apple 7.0 google	Health & Fitness	4.5	Free	No	1-5 million	2016	21	Mentions tinnitus: features all of kinds of quality noise samples helping mask your tinnitus	Sleep, reduce stress, increase privacy, and mask your tinnitus, concentration, blocking distractions.
Oticon Tinnitus Sound	Oticon A/S	1.0.2 Apple 1.0.1 google	Medical	4.2	Free	No	50-100k	2015	13	Tinnitus specific: selection of sounds to decrease the annoyance of tinnitus , to provide temporary relief	Tinnitus
Relax Melodies: Sleep Sounds	Ipnos Software	6.1.2 Amazon 6.2 Apple Varies with the google device	Health & Fitness	4.7	Free	Yes	5-10 million	2017	10	No	Sleep
myNoise	myNoise BVBA	2.4.2 Apple 1.2 google	Health & Fitness	4.5	Free	Yes	50-100k	2017	7	Mentioned tinnitus: useful in cases of tinnitus	Noise machine – multiple uses
Tinnitus Therapy Lite	Sound Oasis	1.0.3 Amazon 1.1.6 Apple 1.1.6 google	Health & Fitness	4.5	Free (only sample of 5 sounds and basic options)	No Pro version?	10-50k	2017	7	Tinnitus specific: Tinnitus relief sounds, sound therapy and sound masking to make tinnitus less noticeable	Tinnitus

Headspace: Guided Meditation & Mindfulness	Headspace, Inc.	2.2.0 Amazon 3.0.3 Apple Varies with the google device	Health & Fitness	3.9	Free (only sample of 10 day meditation)	Yes	1-5 million	2017	6	No	Meditation and mindfulness- multiple problems, essentials of living a healthier, happier life
Sleep Bug: White Noise Soundscapes & Music Box	Panzertax	3.4 Apple 1.6 Google	Health & Fitness	4.4	Free	Yes	100-500k	2017	6	No	Sleep
Beltone Tinnitus Calmer	Beltone	3.4.2 Apple 3.1.4 google	Medical	4.3	Free	No	10-50k	2017	4	Tinnitus specific: app uses a combination of sounds and relaxing exercises that aim to distract your brain from focusing on tinnitus.	Tinnitus
Sleep Pillow	FITNESS22 LTD	7.4 Apple No version Google	Health & Fitness	4.8	Free	Yes	100-500k	2016	4	No	Sleep
Soothing Sounds Lite	Lost Ego Studios Limited	1.22 Apple 1.0 Google	Apple: Medical; Google: Lifestyle	3.5	Free	No	1-5k	2017	4	No	Stress, relaxation
Free Tinnitus	Phase4	1.2 Apple	Medical	NA	Free	No	NA	2016	3	Tinnitus specific:	Tinnitus

HQ: Nature sounds to mask ear ringing Changed name to: Tinnitus Aid: help ear ringing	Mobile					Tinnitus HQ pro version of an app available				Recent research shows that tinnitus can be treated by listening to sounds that have been filtered to remove your specific tinnitus frequencies.*	
Tinnitus Balance	Phonak	2.1 Apple 1.1.947 Google	Medical	3.7	Free	No	50-100k	2016	3	Tinnitus specific: helps you manage your PTM sound plan.	Tinnitus
Rain Rain Sleep Sounds	Tim Gostony	2.0 Amazon 5.2 Apple 3.2 Google	Health & Fitness	4.7	Free	Yes	100-500k	2017	3	No	Sleep
Nature Sounds	Relaxio	2.9.3 google	Health & Fitness	4.7	Free	Yes	1-5 million	2016	2	No	Relaxation, sleep
Relax Noise 3	Martin Nathansen	1.6 Amazon 1.6 google	Health & Fitness	3.95	Free	No	100-500k	2015	2	Mentions tinnitus: masks nerving ambient noise and also your tinnitus with white, pink or red background noise.	masking
ReSound Relief	GN ReSound A/S	3.1.5 Apple 3.1.4 google	Medical	4	Free	No	10-50k	2017	2	Tinnitus specific: app uses a combination of sounds and relaxing exercises that aim to distract your brain from focusing on tinnitus. Over	Tinnitus

										time the brain learns to focus less on the tinnitus.	
Sleep Well Hypnosis	Surf City Apps LLC	2.12 Amazon 3.9 Apple 2.14.4 Google	Health & Fitness	3.8	Free	Yes	100-500k	2017	2	No	Sleep
Zenways	Wimbledon Sound	1.1 Apple	Lifestyle	NA	Free	No	NA	2013	2	No	Relaxation, meditation
Baby Sleep Sounds White Noise	Tiramisu	2.1 Apple 2.0.4 Google	Utilities /Parenting	4.3	Free	Yes	100-500k	2017	1	No	Sleep
Bell Sounds	Leafgreen	1.0 Apple 1.0 Google	Entertainment	4	Free	No	50-100k	2016	1	No	Entertainment
Binaural Beats	Giorgio Calderolla	1.7 Apple	Health & Fitness	5	Free	Yes	NA	2016	1	No	Relaxation, meditation, sleep, concentration
Brainwave Studio Free	RCS LT	1.6.1 Apple	Health & Fitness	NA	Free	No	NA	2015	1	No	Relaxation, stress relief, sleep support, meditation, mind training
Buddhify	Mindfulness Everywhere LTD	2.7.0 Apple 1.0.20 Google	Health & Fitness	4.4	£4.99/£1.99	No	50-100k	2017	1	No	Mindfulness, meditation, increase well being
Chillax	Wimbledon Sound	1.7 Apple	Health & Fitness	NA	Free	No	NA	2017	1	No	Relaxation
Decibel Ultra	Patrick Schaefer	3.3 Apple	Utilities	NA	Free	No	NA	2017	1	No	Sound Meter
Deep Relax	Sonotap	1.5 Apple	Health & Fitness	4	Free	Yes	NA	2013	1	No	Relaxation
Deep Sleep and Relax Hypnosis	Mindifi LLC	1.1 Amazon 2.0 Apple	Medical	3.9	Free	Yes	100-500k	2015	1	No	Sleep, relaxation

		1.3 google									
dB	Faber Acoustical, LLC	4.4.2 Apple	Utilities	NA	£0.99	No	NA	2016	1	No	Sound meter
Insight Timer	Insight Network Inc	12.2.21 Apple Varies with google device	Health & Fitness	4.8	Free	No	1-5 million	2017	1	No	Meditation: sleep, anxiety, stress, sleep, recovery from addictions, self-love and compassion
iTinnitus	Calabughi Entertainment Games	1.3 Apple	Medical	NA	£5.99	No	NA	2015	1	Tinnitus specific: Tinnitus Retraining Therapy – diagnosis and treatment	Tinnitus
Nature Sounds Relax and Sleep	Zodinplex	2.7 Amazon 2.10 Google	Health & Fitness	4.1	Free	Yes	5-10 million	2016	1	No	Relaxation
NatureScapes	Infinite Wave Media, LLC	3.1 Apple	Health & Fitness	NA	Free	Yes	NA	2015	1	No	Relaxation, focus, sleep
Noisli	Noisli	1.1.4 Apple 1.1.2 google	Health & Fitness	4.3	£1.99/£1.49	No	50-100k	2017	1	No	Relaxation, focus, relieve anxiety
Overcome Tinnitus	Divinity Publishing LTD	51 Apple 1.3 Google	Lifestyle	5	£3.99/£2.99	No	500-100	2015	1	Tinnitus specific: you are given a number of post hypnotic and direct suggestions to help you to overcome all problems associated with tinnitus.	Tinnitus
Pzizz Deep Sleep & power nap	Pzizz	3.9.5 google	Medical	4.4	Free	No	100-500k	2017	1	No	Sleep

Rain Sounds – Sleep & Relax	Relaxio	Varies with google device	Music & Audio	4.8	Free	Yes	1-5 million	2016	1	No	Relaxation, sleep
Relax Meditation: Sleep Sounds	Ipnos Software	2.5.1 google	Health & Fitness	4.4	Free	Yes	1-5 million	2017	1	No	Relaxation, meditation, sleep
Relax Rain ~ Rain Sounds	mikroid	4.9.3 Amazon Varies with google device	Lifestyle	3.6	£1.99/Free	Yes	1-5 million	2017	1	Mentions tinnitus: ideal if you have tinnitus problems (ringing in the ears)	Sleep, meditation concentration, tinnitus
Relaxing Sounds - Improve sleep, relax, meditate	Sonotap	2.6 Apple	Health & Fitness	3.5	Free	No	NA	2017	1	No	Sleep, relaxation, meditation
Sleep Mask - White Noise for Sleep, Relaxation, Concentration	Ultabit, LLC	1.2.1 Apple	Health & Fitness	NA	Free	Yes	NA	2015	1	No	Sleep, relaxation, concentration
SleepStream Classic Lite	Explosive Apps	1.3 Apple	Lifestyle	2.5	Free	No	NA	2011	1	No	Sleep, relaxation, meditation, stress, concentration, enjoyment, noise masking
Smiling Mind	SMILING MIND PTY. LTD.	3.2.1 Apple 3.2.1 google	Health and Fitness	3.7	Free	No	100-500k	2017	1	No	Meditation – help bring balance to people's life
Sound Relief	Restored hearing Ltd	1.2.1 Apple	Medical	NA	???	???	NA	2016	1	Tinnitus specific: provides tinnitus sound therapy and has been	Tinnitus

										scientifically proven to reduce tinnitus severity within the first month of treatment.	
Soundly Sleeping	Three Green Wedges	1.3 Apple 1.3 Google	Health & Fitness	3.7	Free	No	500-1000	2016	1	No	Sleep
Starkey Relax	Starkey Hearing Technologies	1.2 Apple 1.1.1 Google	Health & Fitness	4.3	Free	No	10-50k	2016	1	Tinnitus specific: is an informational resource and self-management tool, which is intended for incorporation into a hearing professional's sound therapy protocol for patients diagnosed with tinnitus. Sound therapy uses sound to decrease the loudness or prominence of tinnitus.	Tinnitus
Tinnitus Measurer	Neonix	1.1 Apple	Medical	NA	Free	Yes	NA	2012	1	Tinnitus specific: This program designed for measuring tinnitus tone frequency by	Tinnitus

										comparing hearing noise with test signals. It is useful in measuring and monitoring tinnitus changes in case the noise has a tone form.	
Tinnitus Therapy Tunes	Dr. Marten	8.30 Google	Medical	4.5	Free	Yes	1-5k	2017	1	Tinnitus specific: Current medical research identified regular listening to tailor-made notched music as a novel and promising therapy for tinnitus patients. Allows everybody suffering from tinnitus to create their own notched music.	Tinnitus
Tinnitus Trainer	Essential Software Design	1.1 Google	Health & Fitness	3.0	£3.49	No	10-50	2017	1	Tinnitus specific: aims to try and teach your brain the difference between the 'false' Tinnitus sounds and real	Tinnitus

										sounds of the same frequency. Ultimately the aim is to stop Tinnitus from occurring altogether. Note that results may vary depending on the underlying cause of your Tinnitus.	
White Noise Ambience Lite	logicworks	2.70 Apple	Health & Fitness	NA	Free (Pro version available)	Yes	NA	2017	1	No	Sleep
White Noise Baby	TMSOFT	5.1 Amazon 5.1 Apple Varies with google device	Lifestyle	4.5	£0.99/Free	Yes	1-5 million	2016	1	No	Relaxation, sleep, calming babies
White Noise box	Skunk Brothers GmbH	2.4 Apple	Health & Fitness	4	Free	Yes	NA	2014	1	Mentions tinnitus: Features quality noise samples helping mask your tinnitus	tinnitus, sleep, concentration, focus, stress
White Noise Generator	Relaxio	1.2.0 Google	Music & Audio	4.8	Free	Yes	500k-1 million	2017	1	No	Relaxation, sleep, concentration
White Noise Market	TMSOFT	6.0.3 Amazon 6.0.3 Apple 6.0 google	Utilities/Tools	4.5	Free	No	100-500k	2017	1	No	Relaxation, sleep
Widex Zen, Tinnitus Management	Widex A/S	1.0.2 Apple 1.0.2 google	Health & Fitness	3.8	Free	No	100-500	2017	1	Tinnitus specific: Zen sound therapy	Tinnitus

